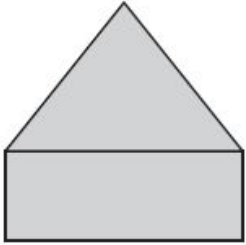


**1.**

The total area of this shape is 44 square inches. The area of the triangle is 20 square inches. Write and solve an equation to find the area of the rectangle.



Equation:

Solution:

in<sup>2</sup>**2.**

Solve the equation. Check your solution.

$$2(4z - 1) = 3(z + 2)$$

z =

**3.**

Solve the equation. Check your solution.

$$x + 5 = 16$$

x =

---

4.

Solve the equation. Check your solution.

$$\frac{4}{5}n = \frac{9}{10}$$

$$n = \text{[ ]}$$

---

5.

Solve the equation. Check your solution.

$$11 = w - 12$$

$$w = \text{[ ]}$$

---

6.

Solve the equation. Check your solution.

$$3y = 18$$

$$y = \text{[ ]}$$

---

7.

Solve the equation. Check your solution.

$$3(5 - 2h) + 9 = -30$$

$$h = \text{[ ]}$$

---

**8.**

Solve the equation. Check your solution, if possible.

$$3x + 15 = 3(x + 5)$$

---

**9.**

Solve the equation. Check your solution, if possible.

$$2x + 4 = -(-7x + 6)$$

---

**10.**

Solve the equation. Check your solution, if possible.

$$\frac{1}{3}(9x + 3) = 3x + 1$$

---

**11.**

Solve the equation. Check your solution, if possible.

$$3x - 1 = 1 - 3x$$

---

**12.**

Solve the equation. Check your solution, if possible.

$$x + 6 = x$$

---

**13.**

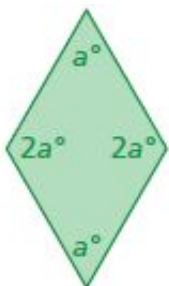
What value of  $x$  makes the equation  $x + 5 = 2x$  true?

- ☐ A. -1
- ☐ B. 0
- ☐ C. 3
- ☐ D. 5

---

**14.**

Find the value of the variable. Then find the angle measures of the polygon. Use a protractor to check the reasonableness of your answer.



Sum of angle  
measures:  $360^\circ$

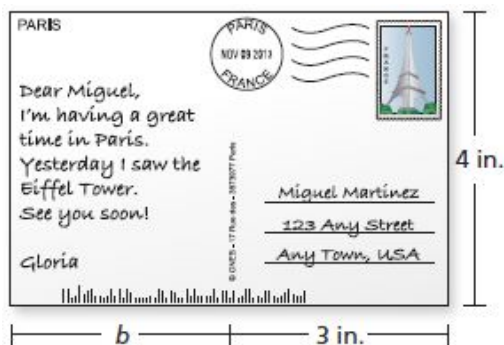
$a =$

<sup>o</sup>,  <sup>o</sup>,  <sup>o</sup>,  
 <sup>o</sup>

15.

**Write and solve an equation to answer the question.**

The area of the postcard is 24 square inches. What is the width  $b$  of the message (in inches)?



Equation:

Solution:  inches

---

**16.**

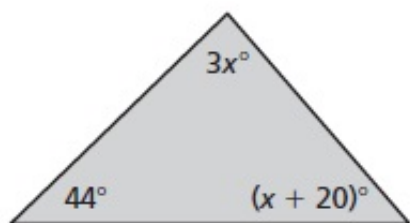
The height of the house is 26 feet. What is the height  $x$  of each story?



feet

17.

The sum of the measures of the interior angles of the triangle is  $180^\circ$ . Write and solve an equation to find the value of the variable.



Equation:

 $x =$ 

---

**18.**

Solve the equation. Check your solution.

$$21(2 - x) + 12x = 44$$

 $x =$ 

---

**19.**

Solve the equation. Check your solution.

$$3x - 11 = 22$$

 $x =$ 

---

**20.**

Solve the equation. Check your solution.

$$-13 + x = -25$$

 $x =$